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CLAIMS

1. A system (23) that maintains synchronization between a video signal (29) and an audio signal (31) that are processed using clocks that are locked, the
5 system (23) comprising:
 - a component (34) that determines an initial audio input buffer level;
 - a component (34) that determines an amount of drift in the initial audio input buffer level and adjusts the clocks to maintain the initial audio input buffer level if the amount of drift reaches a first predetermined threshold; and
 - 10 a component (32) that measures a displacement of a video signal (29) associated with the audio signal (31) in response to the adjusting of the clocks and operates to negate the measured displacement of the video signal (29) if the measured displacement reaches a second predetermined threshold.
- 15 2. The system (23) set forth in claim 1, wherein the initial audio input buffer level is stored in a memory.
3. The system (23) set forth in claim 1, wherein a clock recovery control is disabled if the amount of drift reaches the first predetermined threshold.
- 20 4. The system (23) set forth in claim 1, wherein the audio signal (31) and the video signal (29) comprise a Motion Picture Experts Group (MPEG) signal.
5. The system (23) set forth in claim 1, wherein the component (32) that
25 *measures the displacement of the video signal (29) associated with the audio signal (31) operates to negate the measured displacement of the video signal (29) by re-initializing the measurement of the initial audio input buffer level.*
6. The system (23) set forth in claim 1, wherein the component (32) that
30 *measures the displacement of the video signal (29) associated with the audio signal (31) operates to negate the measured displacement of the video signal (29) by dropping a frame of the video signal.*
7. The system (23) set forth in claim 1, wherein the first predetermined
35 threshold is about +/- 10 ms.
8. The system (23) set forth in claim 1, wherein the second predetermined threshold is about +/- 25 ms.

9. The system (23) set forth in claim 1, wherein the system (23) comprises a portion of a television set.

5 10. The system (23) set forth in claim 9, wherein the television set comprises a High Definition Television (HDTV) set.

11. A system (23) that maintains synchronization between a video signal (29) and an audio signal (31) that are processed using clocks that are locked, the
10 system (23) comprising:

means (34) for determining an initial audio input buffer level;

means (34) for determining an amount of drift in the initial audio input buffer level;

15 means (34) for adjusting the clocks to maintain the initial audio input buffer level if the amount of drift reaches a first predetermined threshold;

means (32) for measuring a displacement of a video signal (29) associated with the audio signal (31) in response to the adjusting of the clocks; and

means (32) for negating the measured displacement of the video signal (29) if the measured displacement reaches a second predetermined threshold.

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12. The system (23) set forth in claim 11, wherein the audio signal (31) and the video signal (29) comprise a Motion Picture Experts Group (MPEG) signal.

13. The system (23) set forth in claim 11, wherein the means (32) for
25 measuring the displacement of the video signal (29) associated with the audio signal (31) operates to negate the measured displacement of the video signal (29) by re-initializing the measurement of the initial audio input buffer level.

14. The system (23) set forth in claim 11, wherein the means (32) for
30 measuring the displacement of the video signal (29) associated with the audio signal (31) operates to negate the measured displacement of the video signal (29) by dropping a frame of the video signal (29).

15. A method (200) for maintaining synchronization between a video signal
35 (29) and an audio signal (31) that are processed using clocks that are locked, the method (200) comprising:

determining (204) an initial audio input buffer level;

determining (206) an amount of drift in the initial audio input buffer level;

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adjusting (210) the clocks to maintain the initial audio input buffer level if the amount of drift reaches a first predetermined threshold;

measuring (212) a displacement of a video signal (29) associated with the audio signal (31) in response to the adjusting of the clocks; and

5 negating (216) the measured displacement of the video signal (29) if the measured displacement reaches a second predetermined threshold.

16. The method (200) set forth in claim 15, comprising storing the initial audio input buffer level in a memory.

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17. The method (200) set forth in claim 15, comprising disabling a clock recovery control if the amount of drift reaches the first predetermined threshold.

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18. The method (200) set forth in claim 15, wherein the act of negating (216) the measured displacement of the video signal comprises re-initializing the measurement of the initial audio input buffer level.

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19. The method (200) set forth in claim 15, wherein the act of negating (216) the measured displacement of the video signal comprises dropping a frame of the video signal.

20. The method (200) set forth in claim 15, wherein the recited acts are performed in the recited order.